ER-2 #809 09/04/13

Aircraft: ER-2 - AFRC #809 (See full schedule)
Flight Number: 13-9061
Payload Configuration: SEAC4RS
Nav Data Collected: Yes
Total Flight Time: 8.4 hours
Submitted by: Timothy Moes on 09/04/13
Flight Segments:

From:	EFD	**To:**	EFD
Date:	09/04/13		
Flight Time:	8.4 hours		
Log Number:	132301	**PI:**	Kent Shiffer
Funding Source:	Hal Maring - NASA - SMD - ESD Radiation Science Program		
Purpose of Flight:	Science		
Comments:	Coordinated flight with DC-8. Flight over Gulf of Mexico. Indications are that all instruments operated nominally. The aircraft is in good shape.		

Flight Hour Summary:

	132301
Flight Hours Approved in SOFRS	166
Total Used	164.6
Total Remaining	1.4

132301 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
08/01/13	13-9048	Check	3	3	163	
08/02/13 - 08/03/13	13-9049	Science	6.5	9.5	156.5	
08/06/13 - 08/07/13	13-9050	Science	8.4	17.9	148.1	
08/08/13	13-9051	Science	7.2	25.1	140.9	
08/12/13	13-9052	Science	7.9	33	133	
08/14/13	13-9053	Science	6	39	127	
08/16/13	13-9054	Science	7.8	46.8	119.2	
08/19/13	13-9055	Science	8.1	54.9	111.1	
08/21/13	13-9056	Science	7.3	62.2	103.8	
08/23/13	13-9057	Science	7.7	69.9	96.1	
08/27/13	13-9058	Science	7.2	77.1	88.9	
08/30/13	13-9059	Science	7.4	84.5	81.5	
09/02/13	13-9060	Science	8.2	92.7	73.3	
09/04/13	13-9061	Science	8.4	101.1	64.9	
09/06/13 - 09/07/13	13-9062	Science	8	109.1	56.9	
09/09/13 - 09/10/13	13-9063	Science	8.1	117.2	48.8	
09/11/13 - 09/12/13	13-9064	Science	7.6	124.8	41.2	
09/13/13	13-9065	Science	8	132.8	33.2	
09/16/13	13-9066	Science	8	140.8	25.2	
09/18/13	13-9067	Science	7.9	148.7	17.3	
09/22/13	13-9068	Science	8.1	156.8	9.2	
09/23/13	13-9069	Science	7.8	164.6	1.4	

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

SEAC4RS - ER-2 #809 09/04/13 Science Report

Mission: SEAC4RS
Mission Summary:

Flight Report – SEAC4RS ER-2, September 4, 2013

Prepared by: Richard Ferrare (richard.a.ferrare@nasa.gov)

Purpose of flight: The science goals for this flight were to sample the life cycle of marine cumulus clouds including its anvil. A secondary goal includes 150 km flight legs along the principle plane for radiation measurements. The flight was to also attempt acquisition of remote sensing measurements over convection along the CALIPSO/CloudSAT overpass at ~19:22 UT.

Pilot: Dean Neeley

Takeoff: 12:46 UT

Duration: 8.4 hours

Notes:

ER-2 first flew ESE over the Gulf to meet the DC-8 and fly principal plane legs over convective outflow cirrus. There was only thin cirrus in this early portion of the flight, but soon the aircraft encountered extensive cirrus from nearby convective systems. The aircraft were loosely coordinated along the principal plane for the radiation run. Satellite imagery showed that convection along the CALIPSO/CloudSAT track was dissipating and so the CALIPSO/CloudSAT track was abandoned for the aircraft to pursue other objectives. After flying the principal plane legs, the ER-2 attempted to fly convection with the DC-8. These legs were first oriented along the principal plane but then were adjusted to match the orientation of the convection and/or the path of the DC-8. The ER-2 flew these legs while the DC-8 attempted to locate and pursue convective towers. After the DC-8 and Lear Jet had determined a suitable location to pursue convection, the ER-2 then flew to this location and flew three 50 n. mile legs over this point. On the return to Ellington, the ER-2 climbed to 65 kft, dipped to 43 kft, then climbed back to 61 kft before the final descent. A full set of MMS maneuvers was performed at 41 kft on the return to Ellington.

Aircraft and instruments: All other instruments appear to have worked nominally as far as limited in-flight and quick-look analyses showed. INMARSAT had a problem during flight, but came back up after a power cycle. All instruments are ready for the next flight.

Images:

Figure 1. ER-2 flight on September 4, 2013

Read more

File:
seac4rs_er2_04_Sep.pdf
Submitted by: Richard Ferrare on 09/05/13

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NASA Official: Bruce A. Tagg
